## ABSTRACT OF THE INVENTION

A refrigerant cycling device is provided. The refrigerant cycling device comprises a compressor, an intermediate cooling circuit and a three-way valve device. The compressor is connected to a heat exchanger and a depressurizing means, for performing a cooling operation and a heating operation. The compressor further comprises a first and a second rotary compression elements within a sealed container, and a refrigerant that is compressed and discharged by the first rotary compression element is introduced to the second rotary compression element. The intermediate cooling circuit is used for radiating heat of the refrigerant discharged from the first rotary compression element. The three-way valve device for opening a passage of the intermediate cooling circuit during the cooling operation. In this way, the coefficient of production (COP) during the cooling operation can be improved.